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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/581,348

04/06/2007

Christian Funke

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EXAMINER

PAK, JOHN D

ART UNIT

PAPER NUMBER

1616

MAIL DATE

DELIVERY MODE

08/16/2011

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/581,348	<b>Applicant(s)</b> FUNKE ET AL.
	<b>Examiner</b> JOHN PAK	<b>Art Unit</b> 1616

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 June 2011.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 and 6-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

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| <p>1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)</p> <p>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</p> <p>3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br/>Paper No(s)/Mail Date _____.</p> | <p>4) <input type="checkbox"/> Interview Summary (PTO-413)<br/>Paper No(s)/Mail Date. _____.</p> <p>5) <input type="checkbox"/> Notice of Informal Patent Application</p> <p>6) <input type="checkbox"/> Other: _____.</p> |
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Claims 1-4 and 6-39 are pending in this application.

Applicant is advised of the following modification (expansion) of the elected and examined subject matter:

Previously elected and examined subject matter:  <u>Group VI</u> , to the extent the claims read on species I-1-4 & fipronil	Currently expanded subject matter to be examined:  <u>Group VI</u> , to the extent that the claims read on I-1-1, I-1-4, I-1-9, I-1-12, I-1-24, I-1-52, I-1-54 & fipronil, ethiprole
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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1-4, 6-21, 25, 29-36 are rejected under 35 U.S.C. 102(e) as being anticipated by Lahm et al. (US 7,902,231).

Lahm et al. disclose compounds of formula 1, which is nearly identical to applicant's formula (I), as it is more narrowly defined in applicant's claim 20 and in applicant's specific compounds I-1-1, I-1-4, I-1-9, I-1-12, I-1-24, I-1-52 and I-1-54. See Lahm's claim 1 & paragraph bridging columns 1-2. Lahm's claims 7, 12, 13 and 18 recite the compound that is applicant's compound I-1-4. Lahm's compounds 4, 20, 2, 22, 3, 7 and 5 correspond to applicant's compounds I-1-1, I-1-4, I-1-9, I-1-12, I-1-24, I-1-52 and I-1-54, respectively (Lahm's column 59; see also Tests A to L on columns 61-66). Lahm's compound of formula 1 is combined with at least one additional

biologically active agent, wherein fipronil and ethiprole are specifically claimed (claims 3-4). The amount of the second ingredient is disclosed as an "effective amount" (column 56, lines 8-10), and the mixture of two pesticides provides broader spectrum of activity (column 56, lines 5-6). Method for controlling pests or their environment is disclosed (claim 5; see also from bottom of column 51 to column 55). Protecting an animal from pest is disclosed (claim 6). Spraying, topical application, and various other application methods are disclosed (column 58, lines 21-38). Further incorporation of surfactant or diluents is disclosed (claims 8-11, 14-17). Rate of application is taught to depend on factors such as the species of pest to be controlled, pest's life cycle, size, time of year, host crop or animal, temperature, and other such factors; and the rate for "active ingredient" ranges 0.01-2 kg/hectare for agricultural purposes and 0.1-150 mg/m<sup>2</sup> for non-agricultural purposes (paragraph bridging columns 58-59). "One skilled in the art can easily determine the biologically effective amount necessary for the desired level of invertebrate control." (column 59, lines 3-5).

Lahm et al. teach the same combination of two pesticides as claimed by applicant. Lahm's formula 1 is narrow enough to clearly envisage applicant's specified compounds in the dependent claims. Lahm's second pesticide list in claim 4 is small enough to clearly envisage ethiprole and fipronil, both of which are well known pesticides. Applicant's 200:1 to 1:200 ratio range in numerous dependent claims is noted, but such mixture ratio is so broad that Lahm's explicit disclosure is clearly within such ratio range. This is an anticipation-based ground of rejection, so applicant's

declaration evidence of 6/1/2011 does not apply here. The claims are thereby anticipated.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 and 6-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lahm et al. (US 7,902,231).

Teachings of Lahm et al. were discussed above and the discussion there is incorporated herein by reference.

Lahm et al. do not specify a mixing ratio of the two active ingredients, but the two pesticides have been taught as having pesticidal properties and Lahm et al. disclose effective amounts as being well within the skill of the ordinary skilled artisan. Applicant's claimed ratios of 200:1 to 1:200, 20:1 to 1:10, 5:1 to 1:5, 1:5, and 1:1 are noted.

One of ordinary skill in the art would have found it obvious to combine the two active ingredients at concentrations and application rates at which the individual ingredients are known to be effective to arrive at an effective mixture ratio. Keeping in mind that Lahm et al. expressly teach the combination of fipronil or ethiprole and applicant's formula I compounds, the ordinary skilled artisan would necessarily have arrived at a mixing ratio. The ordinary skilled artisan would have found it obvious to

combine the two known pesticides at the claimed mixing ratio range to obtain the claimed invention.

Regarding applicant's specification and 6/1/2011 declaration data, it is the position of the Examiner that the data is insufficient against the near-identical teachings of Lahm et al. With respect to claims which have been found anticipated above, applicant's test data fails to outweigh the evidence of obviousness because Lahm et al. clearly disclose the combination of the two pesticides as claimed. With respect to the remaining claims that recite a specific ratio, the Examiner's position is the same but with additional comments as set forth below.

For a given mixture of two pesticides, as taught by Lahm et al. in their patented invention, one of ordinary skill in the art would have found it obvious to combine the two pesticides at various ratios depending on myriad factors such as target insect pests and other such considerations (see Lahm et al., column 58, lines 57-62). Because no pesticide or mixture of pesticides delivers its pesticidal activity in a perfectly linear dose-response manner, one of ordinary skill in the art would have had an expectation of variation in activity for the patented invention of fipronil + Lahm's formula 1 and ethiprole + Lahm's formula 1. Given this expectation, applicant's data is no more than the expected variation of activity when the two pesticides of Lahm's invention are combined as explicitly taught.

Therefore, the claimed invention, as a whole, would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made, because

every element of the invention and the claimed invention as a whole have been fairly disclosed or suggested by the teachings of the cited reference.

For these reasons, all claims must be rejected at this time.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to JOHN PAK whose telephone number is **(571)272-0620**. The Examiner can normally be reached on Monday to Friday from 8 AM to 4:30 PM. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's SPE, Johann Richter, can be reached on **(571)272-0646**.

The fax phone number for the organization where this application or proceeding is assigned is **(571)273-8300**. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-1600. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/John Pak/  
Primary Examiner, Art Unit 1616